

Amendments to the Claims:

1. (Currently Amended) An isolated or recombinant nucleic acid molecule selected from the group consisting of:

a) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or 3;

b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 4; and,

c) a nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2 or 4, wherein said polypeptide has activity against lygus pests.

2. (Currently Amended) The isolated or recombinant nucleic acid molecule of claim 1, wherein said nucleotide sequence is a synthetic sequence that has been designed for expression in a plant.

3. (Previously Presented) The nucleic acid molecule of claim 2, wherein said synthetic sequence has an increased GC content relative to the GC content of SEQ ID NO:1 or 3.

4. (Original) A vector comprising the nucleic acid molecule of claim 1.

5. (Original) The vector of claim 4, further comprising a nucleic acid molecule encoding a heterologous polypeptide.

6. (Currently Amended) A host cell that contains the ~~vector of claim 4~~ nucleic acid molecule of claim 1.

7. (Original) The host cell of claim 6 that is a bacterial host cell.

8. (Original) The host cell of claim 6 that is a plant cell.
9. (Original) A transgenic plant comprising the host cell of claim 8.
10. (Original) The transgenic plant of claim 9, wherein said plant is selected from the group consisting of maize, sorghum, wheat, sunflower, tomato, crucifers, peppers, potato, cotton, rice, soybean, sugarbeet, sugarcane, tobacco, barley, and oilseed rape.
11. (Previously Presented) A transgenic seed comprising the nucleic acid molecule of claim 1.
- 12-18. (Canceled)
19. (Previously Presented) A method for producing a polypeptide with pesticidal activity, the method comprising culturing the host cell of claim 6 under conditions in which the nucleic acid molecule encoding the polypeptide is expressed.
- 20-21. (Canceled)
22. (Previously Presented) A plant having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having pesticidal activity, wherein said nucleotide sequence is selected from the group consisting of:
- a) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or 3;
 - b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 4; and,
 - c) a nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2 or 4, wherein said polypeptide has activity against lygus pests;

wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.

23. (Previously Presented) A plant cell having stably incorporated into its genome a DNA construct comprising a nucleotide sequence that encodes a protein having pesticidal activity, wherein said nucleotide sequence is selected from the group consisting of:

a) a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1 or 3;

b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 4; and,

c) a nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide having at least 95% amino acid sequence identity to the amino acid sequence of SEQ ID NO:2 or 4, wherein said polypeptide has activity against lygus pests;

wherein said nucleotide sequence is operably linked to a promoter that drives expression of a coding sequence in a plant cell.

24-29. (Canceled)

30. (New) The nucleic acid molecule of claim 1, wherein said nucleotide sequence is operably linked to a promoter capable of directing expression of said nucleotide sequence in a plant cell.